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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/063,306	04/10/2002	Mu-Sen Lee	ACSP0002USA	4902

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(NAIPC) NORTH AMERICA INTERNATIONAL PATENT OFFICE
P.O. BOX 506
MERRIFIELD, VA 22116

EXAMINER	
TRAN, VINCENT HUY	
ART UNIT	**PAPER NUMBER**
2115	

DATE MAILED: 01/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/063,306	LEE, MU-SEN	
	Examiner	Art Unit	
	Vincent T. Tran	2115	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-14 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-14 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _____ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-3, 6, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osborn et al (U.S. Patent No. 6,425,087) in view of by Tsuda (Pub. No. U.S. 2002/0018137).

3. As per claim 1, Osborn et al teach a portable web pad [col. 11 line 50] the invention, comprising:

- a battery [110, fig. 1];
- a memory unit [170, fig. 1]; and
- control unit which detects the condition of the battery and takes different actions accordingly [col. 6, lines 12-29].

Specifically, based upon the period of time between battery charging opportunities, the system determines the amount of power that is required to keep the data stored in the memory [col. 6, lines 24-29]. When the residual power is equal to the determined amount, the system takes a predetermined action – locks out power and application interrupt signals [col. 6, lines 11-17].

Osborn et al do not teach a user interface for input the time period. Osborn et al's system is inflexible – Osborn et al use a default time period stored in the portable device.

Tsuda teaches another portable device with flexible user input interface for monitoring residual battery power and keeping data stored in the memory unit accordingly. Specifically, Tsuda teaches a user interface [setter, p. 1 [0009]] for inputting the data keeping time[1]. When the residual power is less than the amount calculated based upon the inputted data keep time, the portable device disables its operation in order to maintain the data stored in the memory unit [p. 1, [0013]].

It would have been obvious to one of ordinary skill in the art to combine the teachings of Osborn et al and Tsuda because they both teach a portable device for monitoring the residual power level in order to save data stored in the memory unit. Tsuda's teaching of user interface would improve flexibility of Osborn et al system by allowing the user to determine the data keep time.

4. As per claim 2, Tsuda teaches the control unit comprises a calculation unit [p. 2 [0024]] for transferring the data keeping time into a reserved power for controlling the battery [p.3, [0039]].

5. As per claim 3, Tsuda teaches the control unit comprises a battery monitor unit [16, fig. 1] for controlling the battery according to the reserved power, when the residual power of the battery is less than the power required for keeping the data in the memory

[1] A setter that sets a desired data maintain time for the volatile memory in which the image data is maintained [p. 1, 0009]].

unit during the data keeping time, the control unit controls the portable web pad to do a predetermined action [p. 3, [0040]].

6. As per claim 6, Tsuda teaches wherein the predetermined action is displaying a message on the user interface [p. 4, [0042]].

7. As per claim 7, Tsuda discloses a DRAM [p. 2, [0023]].

8. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osborn/ Tsuda as applied to claim 1 above, and further in view of Ichimura (U.S. Patent No. 6,501,968) and lee (U.S. Patent No. 6,157,169)

9. As per claim 4, Osborn/Tsuda specifically teaches the calculation unit transferring the data keeping time into a reserved power adjusting command. Osborn/Tsuda is silent in teaching the calculation unit transferring the data keeping time into a reserved power ratio, and then displays the reserved power ratio on the user interface. As such, the user would not able to predict the various levels of power ratio according to the various time set by user.

Ichimura teaches the calculation unit transferring the set time into a reserved power ratio [power ratio = Time x Pa – col. 4 line 14-15]; and further, Lee teaches the relationship between the reserved power ratio and time is displays on the user interface [fig. 11]. As such, it would have been obvious to one of ordinary skill in the art at the

time of the invention to combine the teachings of Osborn/Tsuda and Ichimura/Lee to allow the user to observe the reserved power ratio according to the time set.

10. As per claim 5, Ichimura teaches wherein the calculation unit transfers the reserved power ratio into a reserved power adjusting command for controlling the battery [col. 4 lines 17-20].

11. Claims 8-14 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Osborn et al in views of Green, Jr. et al (U.S. Patent No. 6,201,372) and Lee (U.S. Patent No. 6,157,169).

12. As per claim 8, Osborn et al teach a portable web pad [col. 11 line 50] the invention, comprising:

- a battery [110, fig. 1];
- a memory unit [170, fig. 1]; and
- control unit which detects the condition of the battery and takes different actions accordingly [col. 6, lines 12-29].

Specifically, based upon the period of time between battery charging opportunities, the system determines the amount of power that is required to keep the data stored in the memory [col. 6, lines 24-29]. When the residual power is equal to the determined amount, the system takes a predetermined action – locks out power and application interrupt signals [col. 6, lines 11-17].

Osborn et al do not teach a user interface for input the reserved power ratio. Osborn et al's system is inflexible – Osborn et al use a default reserved power stored in the portable device.

Green teaches another portable device with the reserve power option system which allows the user to enter some value related to the particular power level, or some percentage of a total power via user interface [col. 2 lines 17-18]. When the battery capacity gauge indicates the remaining power level has reached the user specified level, the reserve power option system provides a warning to the user and transits the portable device into the low-current mode [col. 2 lines 28-34].

It would have been obvious to one of ordinary skill in the art to combine the teachings of Osborn et al and Green because they both teach a portable device for monitoring the residual power level and turn off the operation of the device in order to reserve the power for essential use. Green's teaching of user interface would improve flexibility of Osborn et al system by allowing the user to determine the percentage of reserved power.

- Green teaches the control unit transfers the reserved power ratio into a reserved time [claim 16]. However, Osborn and Green are silent in teaching wherein the time is displays on the user interface. Lee teaches wherein the power level and time are display on the user interface [fig. 11]. As such, it would have been obvious to one of ordinary skill in the art to incorporate the teachings of Lee into Osborn/Green system to allow the user the capability to monitor the remaining power as well as the operation time so that user can determines when to recharge the battery without, for example, losing the valuable data store in the memory.

18. As per claim 9, Green teaches wherein the control unit comprises a calculation unit [col. 2 lines 17-18 and line 24].

19. As per claim 10, Green teaches wherein the control unit further comprises a battery monitor unit [col. 2 lines 8-9].

20. As per claim 11, Green teaches wherein the control unit comprises a calculation unit for transfers the reserved power ratio into the keeping time and then displays the keeping time on the user interface [see discussion in claim 8].

21. As per claim 12, Green teaches wherein the calculation unit transfers the time value into a reserved power [col. 2 lines 21-23].

22. As per claim 13, Green teaches wherein the predetermined action is displaying a message on the user interface [col. 2 lines 49-52].

23. As per claim 14, Osborn teaches wherein the memory required continuous power to operate [col. 2 line 29]. As such, Osborn's memory encompasses DRAM because the structure of the memory does not affect the operation of that memory.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent T. Tran whose telephone number is (571) 272-7210. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas c. Lee can be reached on (57 1)272-3667. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Vincent Tran